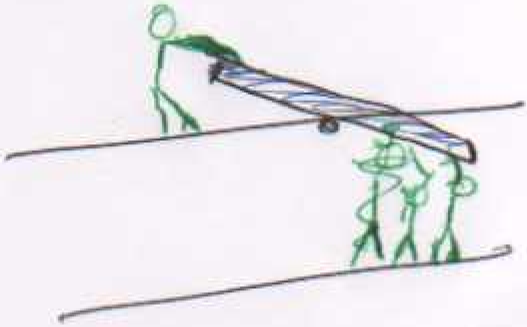
① 26.10.08

"No rope use on site" claim reason lifting gear with no cert.

⇒ very dangerous procedures for moving steel
"handball down (scaffold) stairs". (print later refused!)
hand-lowered through lifted scaffold board spaces, with folk below underneath reaching up



"Rope Crisis"

Spoke
BS Fern - test houses will re-test & certify

Dan Bellamy (said was optician) said Royal Navy gets rope w. cert. (also that Navy no longer uses splices) (tackles

risk analysis

Likelyhood → [rope] - never really breaks - say 1 in 10000 working days

→ [no rope] - say 1 in 10 working days
falls & trips, caught in impossible situation & muscles giving out, etc.
i.e. very likely!!!

Consequence → [rope] - no-one is under load. zero consequence. Only consequence if "secondary effect" - a possible "ricochet"
Say 1 in 100 rope breaks someone is seriously hurt ⇒ 1/100th consequence total. 1.0 consequence "ambulance job"

→ [no rope] - at least one person carrying the load is certain to be hurt. Others at risk. Say handballing a beam down a 6 storey - if beam free-falls out of stairway. Say 1/50 chance of someone being there and certainty of death = 1/50
Say 1.0 conseq

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So "no rope" $\frac{10000}{10} = 1000$ times more likely

$\frac{1.0}{1/200} = 200$ times the consequence

$2 \times 10^2 \times 1 \times 10^3 = 2 \times 10^5$

= 200 thousand times the risk

Say 100000 times the risk

"Rope crisis" contd.

OK - a site operator wants to know that all ropes in use [for lifting more than a trivial lift ~~10kg 0.5m~~ ~~mass × height~~ ≤ 10 eg 10kg to 1m 100kg to 0.1m] are known ("registered") and in proven ~~op~~ condition.

Rope use "abusive" - much "friction braking" w. round turns.

Orig. cert + retest bweekly ~~or~~ certify eg tested to 1.5 tonne. Max static load = 150kg (10:1 safety factor!)

↕

Identity eg "Side rope" 12mm ⌀ 20m

↕

visually inspect daily

↕

identify & competent to recognise new damage - retest or any new damage or major uncontrolled load.

[2 rope lift safety factor 5:1 each rope]

failure of any one rope should not have serious consequ for multi-rope lift.

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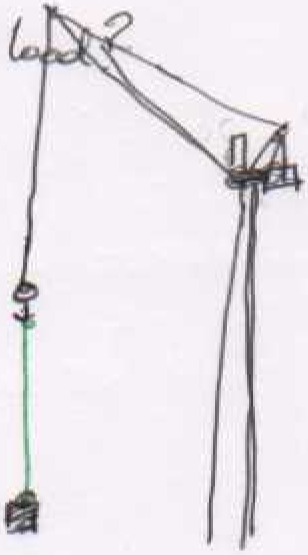
Can site lead contractors have test weights - and use site tower crane.

round turn & 2 half hitches at ends of ropes round crane hook & test load.

One lift?
2 lifts at same load?



Statement about splices?
Short splice - say at least 8 tucks - synth rope and ~~[illegible]~~
eye splice - at least 5 tucks - at least 15 rope dias "free ends" - "strands".

Statement about visible rope condition.
With polypropylene "cut film" blue rope
how much colour fade - quantify?
Is there a std blue. Could you use the web familiar RGB hex notation to ~~for~~ define colour?

Table of ~~[illegible]~~ knots which ~~[illegible]~~ ea. rope user is familiar w. - incl tying method.
eg sheet bend, dbl sheet bend, clove hitch in working end, clove hitch - standing rope, ...

④

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Idea w recording knots, splices, etc is to assess competence & give idea of level of skills (different trades will know different knots.

\"challenge" that can spot-check

ie don't later make any claim you didn't possible to formulate if there was no interest in checking an assertion later held to be important.